IN THE CLAIMS

1. (Currently Amended) Method for producing a connector element for connecting frame parts at a joint location in a bicycle framework, wherein ~~it~~ the method comprises the following steps:

- arranging an expandable core having a reusable inner body,

- applying a number of layers of structural fibre fabric incorporated in a plastic material matrix around the core, to form a layered outer body, of predetermined shape and thickness,

- arranging the core with the layered outer body in the cavity of a mould,

- increasing the temperature of the mould to a value sufficient to cause the reticulation of the plastic material matrix,

- expanding the core, so as to apply a pressure on the outer body inside the mould,

- removing the outer body from the mould and removing the ~~core~~ reusable body from the outer body, so as to obtain a hollow molded body formed of a single piece of structural fibre based material.

2. (Original) Method according to claim 1, wherein the increase of temperature of the mould and the expansion of the core occur substantially

simultaneously.

3. (Currently Amended) Method according to claim 1, wherein a cooling phase is provided before removal of the ~~tubular~~ outer body from the mould.

4. (Currently Amended) Method according to claim 1, wherein said structural fibres are selected ~~among~~ from the group consisting of: carbon fibres, glass fibres, Kevlar fibres, or any combinations thereof.

B1 5. (Original) Method according to claim 1, wherein said plastic material matrix is a thermosetting plastic material matrix.

6. (Original) Method according to claim 1, wherein said temperature is comprised in the range from 80°C to 200°C.

7. (Original) Method according to claim 6, wherein said temperature is maintained for a time comprised in the range from 10 minutes to three hours.

8. (Original) Method according to claim 7, wherein said temperature is

maintained for a time comprised in the range from 30 minutes to three hours.

9. (Currently Amended) Method according to claim 1, wherein the reusable body is made from a metal material ~~expandable core includes a body of metal material~~ covered with a deformable sheath made of an electrometric material, the expansion of the core being obtained through the dilation of the material forming the sheath when the temperature of the mould is increased.

10. (Currently Amended) Method according to claim 9, wherein the electrometric material forming the aforesaid sheath has a thermal dilation coefficient exceeding 15x10--~~5~~-- mm/°C and a maximum continuous heat resistance temperature exceeding 100°C.

11. (Currently Amended) Method according to claim 10, wherein the material forming the core is a synthetic rubber ~~of the type~~ marketed under the trademark AIRCAST 3700 by Airtech International Inc., Huntington Beach, California, USA.

12. (Currently Amended) Method according to claim 9, wherein the

reusable body of metal material comprises a main cylindrical portion and one or more auxiliary;

cylindrical branches extending from the main portion and removably connected thereto.

13. (Currently Amended) Method according to claim 12, wherein the branches are removably connected to the main portion of the ~~metal~~ reusable body by means of screws.

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14. (Currently Amended) Method according to claim 13, wherein each auxiliary branch of the ~~metal~~ reusable body is fastened to the main portion of the core by means of a screw along the axis of the auxiliary branch through a hole of said branch engaging a threaded hole in the main portion.

15. (Currently Amended) Method according to claim 14, wherein the head of each fastening screw is received in a cavity made in the end surface of the respective branch of the ~~metal~~ reusable body, so that said head does not project from said end surface.

16. (Original) Method according to claim 15, wherein the head of each screw presents a hexagonal recess for engagement of a tool.

17. (Currently Amended) Method according to claim 12, wherein said sheath presents a hollow shape corresponding to that of the ~~metal~~ reusable body, comprising a main tubular portion and one ~~ore~~ or more auxiliary tubular branches, extending from the main portion.

18. (Original) Method according to claim 17, wherein the sheath is preferably dimensioned so that it can be applied on the core by slightly stretching it so that the sheath adheres to the core by effect of its elasticity.

19. (Currently Amended) Method according to claim 17, wherein after removal of the outer body from the mould, the ~~core of metal material~~ reusable body is separated from the outer body, leaving the sheath inside the outer body, whereupon the sheath is removed from inside the outer body.

20. (Original) Method according to claim 1, wherein the layers of fabric on the expandable core are defined by one or more windings of at least one strip of

fabric around the core.

21. (Original) Method according to claim 1, wherein the expandable core comprises a main cylindrical portion and one or more auxiliary cylindrical branches extending from the main portion, and in that the layers of fabric are defined by at least one strip wound continuously around the core so as to cover completely the main portion and the branches of the core.

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22. (Original) Method according to claim 21, wherein the layers of fabric further comprise one or more additional plies, each presenting a hole, which are applied in the area of the main portion of the core from which an auxiliary branch departs, said branch passing through the hole of the respective ply.

23. (Original) Method according to claim 21, wherein the layers of fabric further comprise one or more additional strips wound around the ends of one or more portions of the expandable core in order to provide enlarged diameter and increased thickness at selected locations.

24. (Currently Amended) Method according to claim 1, wherein the

expandable core is made of a synthetic material presenting a thermal dilatation coefficient exceeding 5x10--$^{-5}$--mm/°C and a maximum continuous heat resistance equal to at least 80°C, the expansion of the core being obtained through the dilation of the material forming the core when the temperature of the mould is increased.

25. (Currently Amended) Method according to claim 24, wherein the core has a thermal dilation coefficient exceeding 9x10--$^{-5}$--mm/°C and a maximum continuous heat resistance temperature exceeding 100°C.

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26. (Original) Method according to claim 25, wherein the material forming the core is either PTFE, or PCTFE, or PVDF, or PE-HD.

27. (Original) Method according to claim 26, wherein the material forming the core is PTFE.

28. (Original) Method according to claim 1, wherein said core consists of a number of separate elements, in order to allow for the separation of the core from the hollow body after extraction from the mould.

29. (Original) Method according to claim 1, wherein the expandable core includes a body of metal material including a number of separate sectors, the expansion of the core being obtained through a radially outward movement of said sectors.

30. (Previously Presented) Method according to claim 1 wherein said mould and said core are shaped and arranged in order to produce a connector element defining a bicycle bottom bracket with associated tubular extensions for connection to bicycle frame tubes converging towards the bottom bracket.

31. (Previously Presented) Method according to claim 29, wherein mould and said core are shaped and arranged in order to produce a connector element for connection of bicycle frame tubes at any of the joint locations of a bicycle frame where the frame tubes converge towards each other.

32-39. (Withdrawn)

40. (Currently Amended) Method according to claim 1, wherein the pressure on the ~~tubular~~ outer body caused by said expanding step is substantially

radial.

41. (New) A method for producing a connector element for connecting frame parts at a joint location in a bicycle framework, wherein the method comprises the following steps:

arranging an expandable core;

applying a number of layers of structural fibre fabric incorporated in a plastic material matrix around the core, to form a layered outer body, of predetermined shape and thickness;

B1 arranging the core with the layered outer body in the cavity of a mould;

increasing the temperature of the mould to a value sufficient to cause the reticulation of the plastic material matrix;

expanding the core, so as to apply a pressure on the outer body inside the mould;

removing the body from the mould and removing the core from the outer body, so as to obtain a hollow body formed of a single piece of structural fibre based material;

wherein the expandable core includes a body of metal material covered with a deformable sheath made of an electrometric material, the expansion of the core being obtained through the dilation of the material forming the sheath when the

temperature of the mould is increased;

wherein the branches are removably connected to the main portion of the metal body by means of screws.

42. (New) The method according to claim 41, wherein each auxiliary branch of the metal body is fastened to the main portion of the core by means of a screw along the axis of the auxiliary branch through a hole of said branch engaging a threaded hole in the main portion.

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43. (New) The method according to claim 42, wherein the head of each fastening screw is received in a cavity made in the end surface of the respective branch of the metal body, so that said head does not project from said end surface.

44. (New) The method according to claim 43, wherein the head of each screw presents a hexagonal recess for engagement of a tool.